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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In Re: Entergy Nuclear Vermont Yankee	)	
LLC and Entergy Nuclear	)	Docket No. 50-271
Operations, Inc.	)	
(Extended Power Uprate at VY)	)	ASLBP No. 04-832-02-OLA

VERMONT DEPARTMENT OF PUBLIC SERVICE
REQUEST FOR LEAVE TO FILE A NEW CONTENTION

The Vermont Department of Public Service (DPS) files this request pursuant to 10 CFR §2.309(f)(2) without waiving its argument, filed with its Petition to Intervene, that to the extent new issues are raised in the Report of the previously announced independent inspection at Vermont Yankee (VY), the requirements for late filed or amended contentions should not apply.

Sixth Contention

The Application for Amendment, Including All Supplements Thereto, Fails To Comply With 10 CFR 50 Appendix R, Specific Requirements, Paragraph L(2)(b) Because It Does Not Verify The Assumption, Used For Purposes of the Safe Shutdown Capability Analysis (SSCA), that the Reactor Core Isolation Cooling (RCIC) System Can Be Made Operable In Sufficient Time To Permit The Operator To Perform the Required Actions Before Core Uncovery.

Bases

1. 10 CFR 50, Appendix R, Specific Requirements Paragraph L(2)(b) requires that "The reactor coolant makeup function shall be capable of maintaining the reactor coolant level above the top of the core for BWRs".

2. If the extended power uprate is approved, the time from initiating event to core uncovery will be approximately 15% less than with the currently approved operating license

Template= SECY-041

SECY-02

power level.

3. Applicant has now withdrawn the bases upon which it previously assumed that operator action could be taken in sufficient time to prevent core uncovery (other than the previously exempted "momentary" uncovery), has modified the procedure upon which the previous assumption was based and will not have verified the basis for the assumption using the new procedures to show compliance with Appendix R, nor will it have completed the training of its operators for the new procedures, until at least December 1, 2004.

Supporting Evidence

1. Attached, as Exhibit 38, is a letter dated September 30, 2004 and received by DPS on October 11, 2004 which provides the evidentiary support for these statements. The letter contains a statement of "additional information" which includes the following: "VY has revised the procedure governing operator actions and is in the process of verifying this assumption [that the RCIC can be made operable in approximately 15 minutes]. This verification as well as training of operations crews will be completed by December 1, 2004." *Id.* at p. 1.

2. Also attached, as Exhibit 39, is Sections 6.7, 6.71 and Table 6-5[1] of NEDC-33090, Revision 0, September 2003, *Safety Analysis Report for Vermont Yankee Nuclear Power Station - Contant Pressure Power Uprate,* which identifies the shortened time to core uncovery applicable to the VY EPU.

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[1] These Sections contain redacted portions which make complete understanding difficult.

Template = SECY-067

SECY-067

DPS MEETS 10 CFR §2.309(f)(2)

1. DPS could not have filed this Contention which is based on the fact that Applicant was changing its procedures for how operators will prevent core uncovery in the event of an Appendix R fire any sooner than when it received a copy of the letter of September 30, 2004 in which Applicant announced that fact to the NRC[2].

2. Since the Applicant admits it is now changing the procedures it will use to perform the necessary functions to prevent core uncovery, that it has yet to verify how much time it will take to implement these procedures and thus, that it no longer has an adequate basis to support its assumption about how much time will be required, this new evidence is materially different than what was previously submitted by the Applicant.

3. The information which forms the basis for the contention was first made publically available to DPS one week ago.

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[2] The September 30, 2004 letter is the first public identification of an issue identified in the NRC engineering inspection of August 2004. DPS participated in the inspection but is prevented from speaking publically about its results until after the NRC inspection report is issued (see DPS Exhibit 35).

Conclusion

For all the reasons stated DPS respectfully submits that this new contention, based on newly available information, should be admitted.

Respectfully submitted,

Sarah Hofmann
Special Counsel
Department of Public Service
112 State Street - Drawer 20
Montpelier, VT 05620-2601

Anthony Z. Roisman
National Legal Scholars Law Firm
84 East Thetford Rd.
Lyme, NH 03768

Dated at Montpelier, Vermont this 18th day of October, 2004

Entergy

Entergy Nuclear Northeast
Entergy Nuclear Operations, Inc.
Vermont Yankee
185 Old Ferry Rd.
P.O. Box 500
Brattleboro, VT 05302
Tel 802-257-5271

September 30, 2004

Docket No. 50-271
BVY 04-107
TAC MC0761

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: **Vermont Yankee Nuclear Power Station**
Technical Specification Proposed Change No. 263 – Supplement No. 17
Extended Power Uprate – Response to Request for Additional Information related to the 10 CFR 50 Appendix R Timeline.

Reference: 1) Vermont Yankee Nuclear Power Station, "Technical Specification Proposed Change No. 263 – Extended Power Uprate," BVY 03-80, September 10, 2003

This letter provides additional information in support of the application by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy) for a license amendment to increase the maximum authorized power level of the Vermont Yankee Nuclear Power Station (VYNPS) from 1593 megawatts thermal (MWt) to 1912 MWt.

Based on telecoms with NRC staff, additional information related to Vermont Yankee's (VY) capability to mitigate a 10 CFR50 Appendix R fire event as discussed in Attachment 4 to Reference 1) was requested.

The additional information is as follows.

VY's EPU submittal documented that the time to core uncovery as a result of EPU was changed from 25.3 minutes to 21.3 minutes and stated that there is sufficient time available for the operator to perform the required actions. This statement is based on the current Safe Shutdown Capability Analysis (SSCA) assumption that the Reactor Core Isolation Cooling (RCIC) system can be made operable in approximately 15 minutes. VY has revised the procedure governing operator actions and is in the process of verifying this assumption. This verification as well as training of operations crews will be completed by December 1, 2004.

This letter provides a commitment to verify the time assumed in the SSCA and complete operator training by December 1, 2004.

This supplement to the license amendment request provides additional information to update Entergy's application for a license amendment and does not change the scope or conclusions in the original application, nor does it change Entergy's determination of no significant hazards consideration.

If you have any questions or require additional information, please contact Mr. James M. DeVincentis at (802) 258-4236.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 30, 2004.

Sincerely,

Robert J. Wanczyk
Director, Nuclear Safety Assurance
Vermont Yankee Nuclear Power Station

cc: Mr. Richard B. Ennis, Project Manager
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
Mail Stop O 8 B1
Washington, DC 20555

Mr. Samuel J. Collins
Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

USNRC Resident Inspector
Entergy Nuclear Vermont Yankee, LLC
P.O. Box 157
Vernon, Vermont 05354

Mr. David O'Brien, Commissioner
VT Department of Public Service
112 State Street – Drawer 20
Montpelier, Vermont 05620-2601

Licensee Identified Commitment Form

This form identifies actions discussed in this letter for which Entergy Nuclear Operations, Inc. (Entergy) commits to perform. Any other actions discussed in this submittal are described for the NRC's information and are **not** commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE (If Required)
	One-Time Action	Continuing Compliance	
Verify the RCIC start time assumed in the SSCA and complete training of operations crews on the revised procedure.	X		**December 1, 2004**

GE Nuclear Energy
175 Curtner Ave., San Jose, CA 95125

NEDO-33090
Revision 0
Class III
0000-0007-5271
September 2003

SAFETY ANALYSIS REPORT

FOR

VERMONT YANKEE NUCLEAR POWER STATION

CONSTANT PRESSURE POWER UPRATE

Prepared by: E. D. Schrull

Approved by: _____
Michael J. Dick, Project Manager
General Electric Company

Approved by: _____
Craig J. Nichols, Project Manager
Entergy Nuclear Operations, Inc.

NRC Docket No. 50-271
ASLBP No. 04-832-02-OLA

DPS Exhibit 39
4 Pages

6.6 POWER DEPENDENT HVAC

The HVAC systems consist mainly of heating, cooling supply, exhaust, and recirculation units in the turbine building, reactor building, and the drywell. CPPU results in slightly higher process temperatures and small increases in the heat load due to higher electrical currents in some motors and cables. The topic addressed in this evaluation is:

Topic	CPPU Disposition	VYNPS Result
Power dependent HVAC performance	[[	]]

The affected areas are the drywell; the steam tunnel in the reactor building; and the FW heater bay, condenser, and the motor driven condensate and RFP rooms in the turbine building. Other areas in the reactor building and the turbine building are unaffected by the CPPU because the process temperatures remain relatively constant.

The increased heat loads during normal plant operation result in < 1°F increase in the drywell and the main steam tunnel. In the turbine building, the maximum temperature increase in the low pressure and high pressure FW heater areas and the condensate pump room is < 5°F, and the maximum temperature increase in the FW pump room is < 8°F.

The 105°F design ambient room temperature for the condensate and RFP rooms is exceeded in the summer under CPPU conditions. No adverse effect is expected for short periods of time with elevated room temperatures. Affected equipment will be evaluated and dispositioned, as necessary, to assure continued reliable operation at CPPU conditions.

Based on a review of design basis calculations, current area/room temperatures, and CPPU calculations, the design of the HVAC systems are adequate to support CPPU.

6.7 FIRE PROTECTION

This section addresses the effect of CPPU on the fire protection program, fire suppression and detection systems, and reactor and containment system responses to postulated 10 CFR 50, Appendix R fire events. The topics addressed in this evaluation are:

Topic	CPPU Disposition	VYNPS Result
Fire suppression and detection systems	[[	
Operator response time		
Peak cladding temperature		
Vessel water level		
Suppression pool temperature		]]

[[

]] Any changes in physical plant configuration or combustible loading as a result of

modifications to implement the CPPU, will be evaluated in accordance with the plant modification and fire protection programs. The safe shutdown systems and equipment used to achieve and maintain cold shutdown conditions do not change, and are adequate for the CPPU conditions. The operator actions required to mitigate the consequences of a fire are not affected. Therefore, the fire protection systems and analyses are not affected by CPPU.

The reactor and containment response to the postulated 10 CFR 50 Appendix R fire event at CPPU conditions is evaluated in Section 6.7.1. The results show that the peak fuel cladding temperature and containment pressures and temperatures are below the acceptance limits and demonstrate that there is sufficient time available for the operators to perform the necessary actions to achieve and maintain cold shutdown conditions. Therefore, the fire protection systems and analyses are not adversely affected by CPPU.

6.7.1 10 CFR 50 Appendix R Fire Event

A [[ ]] evaluation was performed to demonstrate safe shutdown capability in compliance with the requirements of 10 CFR 50 Appendix R assuming CPPU conditions.

The results of the Appendix R evaluation for CPPU provided in Table 6-5 demonstrate that the fuel cladding integrity and containment integrity are maintained and that sufficient time is available for the operator to perform the necessary actions. The current exemption for the momentary core uncovery during depressurization remains necessary for CPPU. CPPU does not affect any other exemptions described in the VYNPS safe shutdown capability analysis. No changes are necessary to the equipment required for safe shutdown for the Appendix R event. One train of systems remains available to achieve and maintain safe shutdown conditions from either the Main Control Room or the remote shutdown panel. Therefore, CPPU has no adverse effect on the ability of the systems and personnel to mitigate the effects of an Appendix R fire event, and satisfies the requirements of Appendix R with respect to achieving and maintaining safe shutdown in the event of a fire.

6.8 OTHER SYSTEMS AFFECTED BY POWER UPRATE

This section addresses the effect of CPPU on systems not addressed in other sections of this report. The topic addressed in this evaluation is:

Topic	CPPU Disposition	VYNPS Result
Other systems	[[	]]

Based on experience and previous NRC reviews, all systems that are significantly affected by CPPU are addressed in this report. Other systems not addressed by this report are not significantly affected by CPPU.

[[ ]]

Table 6-5
VYNPS Appendix R Fire Event Evaluation Results

	CLTP	CPPU	Appendix R Criteria
Time to Core Uncovery (minutes)	25.3	21.3	≤ 21.3 [1.]
Cladding Heatup (PCT) (°F)	1292.9	1475.4	≤ 1500
Peak Drywell Pressure (psig)	23.6	23.6	≤ 25 [2.]
Suppression Pool Bulk Temperature (°F)	180.9	189.5	≤ 281 [3.] ≤ 195 [4.]
Net Positive Suction Head [5.]	Yes	Yes [6.]	Adequate for system using suppression pool water source

Notes:

1. Time required to initiate RCIC.
2. Drywell design pressure is 56 psig. The Appendix R Criterion is based on the RCIC operational limit.
3. Containment structure design limit.
4. Torus attached piping limit.
5. NPSH demonstrated adequate, see Section 4.2.
6. Overpressure credit required, see Section 4.2.6.

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In Re: Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc. (Extended Power Uprate at VY)	))))	**Docket No. 50-271** **ASLBP No. 04-832-02-OLA**

AFFIDAVIT OF WILLIAM K. SHERMAN

1. My name is William K. Sherman. I am employed by the Vermont Public Service Department ("Department") in the position of State Nuclear Engineer. I have held this position since November, 1988. My duties include ongoing State regulatory oversight of the Vermont Yankee Nuclear Power Station ("Vermont Yankee"), as well as advising the Department and other State agencies on issues related to Vermont Yankee and nuclear power. I previously submitted my resume with the Department's Notice of Intention to Participate and Petition to Intervene filed on August 30, 2004.

2. I assisted in the preparation of the Department's Request for Leave to File a New Contention.

3. All of the factual information contained in the Department's Leave to File a New Contention is true and correct to the best of my knowledge.

William K. Sherman
State Nuclear Engineer

Subscribed and sworn to before me this 18th day of October, 2004.

Susan M. Pittsley
Notary Public
My commission expires February 10, 2007.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	Docket No. 50-271
ENTERGY NUCLEAR VERMONT	)	
YANKEE LLC AND ENTERGY NUCLEAR	)	ASLBP No. 04-832-02-OLA
OPERATIONS, INC.	)	
(Vermont Yankee Nuclear Power Station)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the Vermont Department of Public Service Request for Leave to File a New Contention in the captioned proceeding has been served on the following by deposit in the United States mail, first class, postage prepaid, and where indicated by an asterisk by electronic mail, this 18th day of October, 2004.

Alex S. Karlin, Chair*
Administrative Judge
Atomic Safety and Licensing Board Panel
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Dr. Anthony J. Baratta*
Administrative Judge
Atomic Safety and Licensing Board Panel
Mail Stop T-3F23
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Lester S. Rubenstein*
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Respectfully submitted,

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STATE OF VERMONT
DEPARTMENT OF PUBLIC SERVICE

October 18, 2004

Office of the Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Rulemaking and Adjudications Staff

Re: Docket No. 50-271 -
ASLBP No. 04-832-02-OLA
Extended Power Uprate at Vermont Yankee Nuclear Power Station

Dear Sir/Madam:

Please find enclosed for filing an original and two copies of the Vermont Department of Public Service Request for Leave to File a New Contention with Exhibits, the Affidavit of William K. Sherman, and Certificate of Service.

If you have any questions about this filing, please call me at 802-828-3088. Thank you for your assistance in making this filing.

Very truly yours,

Sarah Hofmann
Special Counsel

cc: As per Certificate of Service